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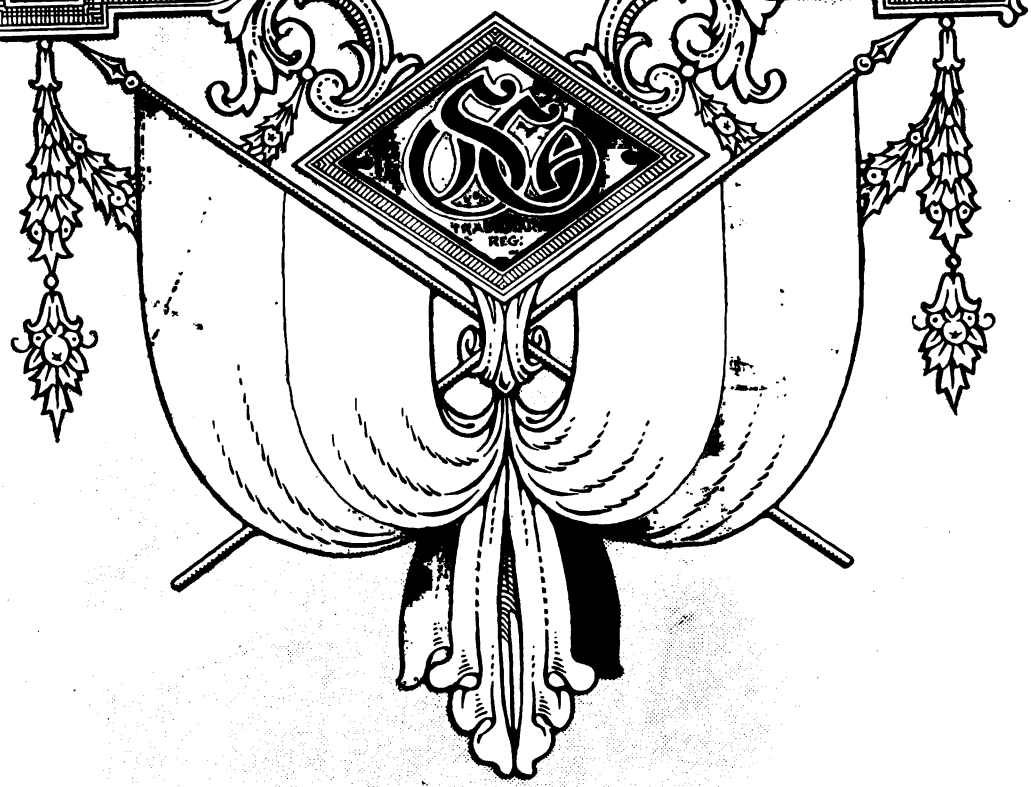

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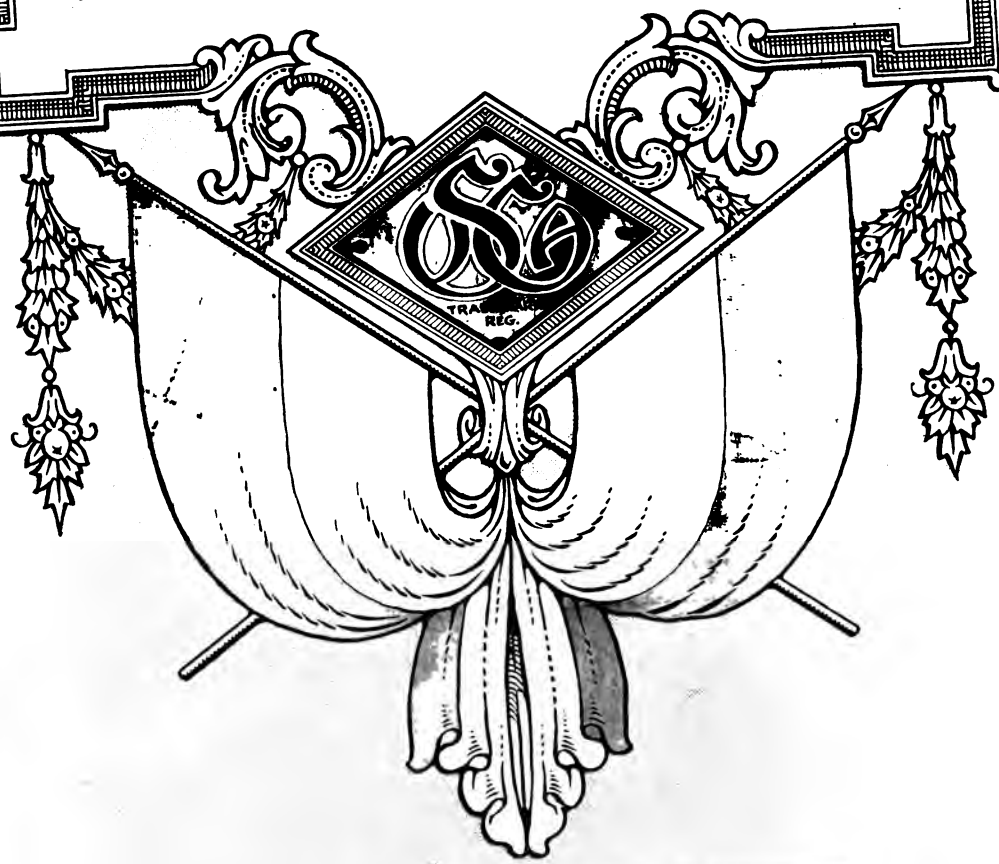

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"UNION OF THE SIBERIAN CREAMERY and OTHER CO-OPERATIVE ASSOCIATIONS" and THE COUNTRY SERVED BY THIS ORGANIZATION

Compiled by the Section of Economical Statistics of the Board of the Union of the Siberian Creamery Associations, May 1919, Omsk, Siberia

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BOSTON, MASS., U. S. A.
1919

of most diverse geological epochs, from the granites and gneiss to sea formations of the Tertiary period. In the region which adjoins the Urals more recent formations are met with, of the cretaceous and Tertiary epochs, though the outcrops of granite are also in evidence.

In the stratified Kirghyz region elevations, bared of more recent deposits, consist of ancient granites, gneiss, syenites, diorites, and porphyries. Lower down on the slopes and in the areas between the elevations, deposits of more recent epochs are to be found. Devonian quartzites and shists, carboniferous strata, and oligocene sea deposits.

In the Altai Mountains are observed outcrops of various rocks, mostly of the Cambrian, Devonian, and carboniferous epochs, with occasional outcrops of gneiss and granites. The crystal shists are mostly found in the Altai.

The western Siberian lowland is a great hollow, filled up in its southern part with tertiary sea formations, not older than the Oligocene period, tertiary formations of Miocene and Pliocene epochs and quaternary fresh-water deposits.

All these formations are running in horizontal, unbroken strata, and are mostly soft and apt to crumble, belonging to clays, sand, and clayey soils; hard and semi-hard formations, such as sandstone, shists, etc., are seldom found.

How deep these soft, friable formations are is not known. It has been ascertained, however, that in the locality due north from the Ishym, about 55 degrees north latitude, the bore went down as far as 320 meters without meeting hard rock, passing all the way through soft and friable deposits.

The western brim of this great bowl reaches, approximately, the longitude of Cheliabinsk, while the eastern brim touches the river Obi, and the southern side runs along the edge of the Kirghyz ridgy land, where granites crop out from under the layers of soft soils.

Mineral Wealth. The deposits of useful minerals are distributed in accordance with geological formations.

Along the western, eastern and southern boundaries of the district, where outcrops of old hard rocks are found, there are also deposits of ores. In the middle part of the district and on the northern boundary, where old rocks are covered with deep layers of later deposits, the location and working of ore are impossible. In the Ural district are found deposits of alluvial gold, which are commercially worked near the railway station of Miass, due west of Cheliabinsk, and also in some other places. Quartz gold is worked in Kochkars, near the town of Troitzk. Near Cheliabinsk deposits of coal are worked. In several places in the Ural region fire clays, gypsum, limestone, iron ore, and precious stones are found. Along the southern boundary of the district, and immediately beyond it in the Kirghyz ridgy

The wheat belt reaches its most northern point in Western Siberia.

Winter in the Siberian butter-making district is very cold. Chart No. 5 shows that the January isotherm —20°, passes in the western part of the district over 58° and 60° north, where the influence of the Atlantic Ocean is felt more. Then in the middle part of the district it passes almost 54 north latitude, and in the Altai region, where the winter temperature is tempered by the abundance of precipitation and nebulity, due to the influence of mountains, the isotherm passes 57 north latitude.

The mean January temperature in the above mentioned parts of the district varies from —16° to —22°. The former reading (—16°) is observed only on the extreme west and extreme southeast (see chart No. 5).

The low winter temperature does not allow oak, beech, maple or ash trees to grow anywhere in the West Siberian butter-making district. Apple and pear trees can be grown only in the southernmost part of the district. Cherry grows as a dwarf bush with small leaves and berries.

As the summer temperature of the district reaches 35° in the shade and winter temperature —45, there is an annual range of extreme readings of 80°, with a range for mean January and July temperature at 42°.

In the district there are not only great variations in the annual temperatures, but also in the daily ones. The air being dry and the sky clear, it often happens that a hot day is followed by a cold night, which towards morning, particularly during Spring and Autumn, reaches below zero, destroying many plants. Therefore the period of vegetation, i. e., between the last frosts in Spring and the first frost in Autumn, is very short, lasting, in the central part of the district, 150 days; toward the south this period is lengthened by a few days, and toward the north it is a few days shorter.

This peculiarity of the climate does not permit the cultivation of slow ripening plants, such as corn (maize) sugar beetroot, etc. The successful cultivation of these plants is possible only in the southeastern part of the district, where the period of vegetation is longer and the climate warmer in localities protected by mountains against cold winds from the north and northeast.

Amount of Precipitation. As to the amount of precipitation, the conditions in the district of the Siberian butter-making are not very favorable. As Chart No. 3 shows, the major part of the district has less than 40 cms. of precipitation yearly, a considerable part of the district has 40-50 cms., and by far the minor part enjoys 50-60 cms.

The largest amount of precipitation falls in two parts of the district. One part is in the west, bounded on the east and north by Irtysh, on the west by the Tobol, and in the south reaches 56° north latitude. The other part is in the region of the Altai Mountains, and can be bounded by a line passing 100 kilometers due west from Mariinsk and through Kouznetzk,

mountainous character only in their upper course. They are all swift, with stony bottoms, clear cold water and great floods during summer caused by thawing of glaciers in the mountains or by heavy showers. Of these rivers only the Irtysh and Tom are navigable; the rivers Charysh and Bia are navigable for a short distance from their mouths. The rest of the rivers of the district have all the characteristic features of valley rivers, namely, soft, crumbling banks, sandy or oozy bottom, slow current, muddy water and winding course, if the river is small, or, dividing into several branches, if the river is big. In Springtime when the snow thaws, these rivers overflow over wide tracts; in the middle and end of summer they become shallow. The river Obi, beginning at the confluence of the rivers Katun and Bia, is partly of that character; in a greater degree Irtysh in the northern parts of the Provinces of Semipalatinsk and Akmolinsk and the left tributaries of Obi are completely so. Among this kind of rivers may be counted the left tributaries of Tobol, which, though they flow from the Urals, have in their middle and lower course all the distinctive features of the rivers of the plains.

Lakes. The district is very peculiar, inasmuch as there are great stretches of land without any rivers or other kind of flowing water. The stretches of land dividing the rivers Isiet and Miass, Miass and Uyi and Tobol and Ishym, Ishym and Irtysh, Irtysh and Obi, are plains with such small gradients that the moisture precipitated from the atmosphere accumulates in the depressions and forms lakes, mostly small. These are very numerous. For instance, in the district of Kourgan, Government of Tobolsk, with an area of 28,000 sq. kilometers, there are 500 lakes of area varying from 80 sq. kilometers to 0.25 sq. kilometers.

The depth of all lakes in the steppe belt, varies from 2 to 8 meters only, with low-lying and flat banks and sandy or oozy bottom. Many lakes have fresh drinking water but the farther south the more rapid the evaporation, with the result that the lakes contain a more or less concentrated solution of salt. These lakes are salt, bitter or alkaline. The height of the water in the steppe lakes varies from year to year, and the more shallow ones sometimes entirely dry up.

In the years characterized by low water, many slightly saline lakes become very salty; when the water rises the salt solution becomes weaker. It has been noted that lakes fill up and dry periodically. The length of the period is about every 40 years, but this phenomenon, as well as its causes, have been studied very slightly.

The majority of lakes are situated at the bottom of isolated depressions, and have no connection between them, but where the land has a gradient there are systems of lake with different levels and connected with one another by running water either during the whole year or only in the Spring. In such systems all lakes except the lowest are fresh water while the lowest, which has no outlet for its water and where

and in small quantities, bird cherry, currant, sweet brier, hawthorn, meadow sweet and wild cherry.

Berry-bearing herbaceous plants are also less numerous in this district, only strawberry and stone bramble being found.

The herbs of the forest steppe belt are not so thick, tall and juicy as those of the forest belt, but at the same time they are very nutritious and the cattle of the belt are bigger and fatter than in the forest zone.

The most luxuriant growth of herbs is found in the Baraba Steppe—a location between the rivers Irtysh and Obi. The thick, juicy and tall herbs of this locality favor stock raising and dairying, and by the amount of butter produced, this locality heads the list.

In the belt of forest steppe the good fodder herb, Medicago Falcata, grows in great quantities. It is known in the United States under the name "Alfalfa." Wheat is greatly cultivated in this belt, occupying more than half of all cultivated land. In the southern part of the belt hard wheats of high class grow well, but in the middle and northern sections these wheats do not thrive. The second cereal, in quantity, is oats. Spring rye, barley, peas, buckwheat, millet and sometimes spelt, flax and hemp are growing. In the southeastern section sunflowers are also grown, and potatoes thrive well in kitchen gardens.

The sowing of winter rye is not widely practiced, as the scanty snow cover is not sufficient protection against the frosts. In the southern section of the forest steppe belt cucumbers thrive in fields, as do also melons and watermelons, which do not reach great size, but are very sweet.

There is no fruit grown in the belt, as the fruit trees imported from European Russia cannot stand the local winters and no local type of fruit tree has yet been obtained. The next belt toward the south is the feather grass steppe, where there are very few woods.

Acerose woods are found on granite mountains of the northern section of the Kirghyz ridgy land, especially on the Kokchetav table land, due east from the river Ishym, and on sandy stretches alongside the rivers Irtysh and Tobol.

The steppe is all covered with grass, with feather grass Stipa Pennata and Festuca Ovina prevailing.

Great quantities of gramineous, umbellar and papilionaceous plants also grow here, and in places groups of wild almond (prunus nana) are found, also meadow sweet, yellow acacia (caragana arborescens) etc.

Of trees, only birch is occasionally met with, but these are generally badly twisted and short living.

All growth is withered up by the end of the summer and the steppe takes on a brownish-yellow depressing tint. Of berry-bearing plants, there are found in the steppe in great quantities strawberry, and on the river banks blackberry and currants, while in places wild cherry, in the form of small bushes, is found.

of utilization of animal products, all of which is bound to raise the prices for cattle, stock raising must develop still more and it is difficult to foresee the extent of its development.

In addition to the above, there are in the district of the Siberian butter-making and in the adjacent localities, projected new railways totalling about 3,000 versts, or 2,000 English miles.

These new railways are shown on the attached map. They promise to invigorate the Southern section of the butter-making district, which is well suited to stock raising and enormously rich in minerals such as coal, copper, silver and lead. No doubt the new railways will facilitate expansion of the Siberian butter-making district in the southern direction by providing means for export of cream butter to the distant markets.

Measures to Improve Stock Raising. The Government, Zemstovs and the Union of the Siberian Creamery Associations do much to spread theoretical and practical knowledge of improved methods of caring for cattle, especially with regard to warm stock yards and proper feeding, and as a result of this propaganda marked improvements have been observed in the more civilized northwestern part of the district and also in other localities. In many villages of the district of Kourgan and Yalutorovsk, the peasants appreciate the usefulness of warm stock yards and energetically construct them. To make the peasants realize the profitableness of improved feeding and tending of milch stock, the Union of the Siberian Creamery Associations employs a staff of agronomic specialists and spends considerable sums of money on special establishments to demontrate the perfected methods.

Export of Products of Stock Raising. At present a considerable amount of the products of stock raising, besides cream butter, export of which will be discussed later, is exported to European Russia, Eastern Siberia and abroad.

Previous to the war, there were brought on foot each summer, from the south to the towns of Omsk, Petropavlovsk, Kourgan, Cheliabinsk, Troitzk and Ekaterinbourg, 360,000 heads of cattle and 200,000 sheep. Of this amount about 100,000 cattle were sent by rail to Petrograd, and the rest slaughtered and sent to Moscow and Petrograd as frozen meat.

These cattle were all bought from the Kirghyz and came from the steppe regions.

In the Government of Tomsk, Tobolsk and Altai, where butter-making is especially developed, there were slaughtered each autumn about 300,000 surplus cattle and an equal number of surplus sheep.

During the whole winter, along the main Siberian railway, there moves an increasing flow of meat from east towards west.

Commencing east of Novo-Nikolaievsk, a stream of meat reaches this town amounting to about 300,000 poods (data for 1913) and leaves it in-

telting foot wear and pressing oil of hemp seed, linseed and garden cress seed (Camelina Sativa).

Domestic Industries. Tanning, oil pressing, preparation of wooled sheep skins and felting foot wear as domestic industries are popular in the region inhabited by the Russians. An artisan who has a small workshop, generally of a most primitive construction, usually executes orders for the neighbouring peasants. Only in two places, in the town of Barnaul and the village of Shatrovskoe, the district of Yalutorovsk, has the preparation of black sheep furs and fur coat making become an industry on a larger scale. The same can be said of felting foot wear, which is carried on in the town of Barnaul and near the town of Kourgan. Oil pressing has somewhat developed near the latter town with the aid of hydraulic presses.

All these industries are worked for the needs of the nearest local markets and it is impossible to ascertain the exact volume of their production.

Flour milling, distilling, and brewing are industries on a larger scale.

Milling Industry. According to the development of the flour milling industry in the district, the list is headed by the town of Omsk, followed by the towns of Novo Nikolaievsk and Tomsk. The last named, though situated outside the district, grinds grain contributed by the district.

The secondary centres of the flour milling industry are, in the Obi region, the towns of Barnaul, Biisk, Kamen and in the basin of the Irtysh, —Semipalatinsk, Pavlodar, Kourgan and Yalutorovsk.

Previous to the war the annual output of the flour mills in the Obi region was calculated at 15.8 million poods, or 5.1 million cwts., and that of the Irtysh region at 8.9 million poods, or 2.9 million cwts. The flour mills worked not only for local markets, but also for exportation; up to 75% of flour produced in Novo Nikolaievsk was exported to western Siberia, while about 50% of the flour produced in Omsk went to European Russia, mainly in the Urals region.

Distilling and Brewing. In 1910-1911 there were 28 distilleries in the district, with a total output of 3,000,000 vedros, or 8,115,000 gallons of alcohol 40° strong. At the same time there were 40 breweries in the district, with a total output of 1,450,000 vedros, or 3,922,250 gallons.

Textile industry is not worked on a large scale and the peasants make fabrics by hand of hemp, flax and wool for household use.

Butter-making. The most conspicuous branch of the manufacture of raw products of agriculture, which gives considerable profits to the peasantry and occupies a prominent place in exports abroad is butter-making— the trade of the district.

unsuccessful attempts he at last organized a potato-trickle works near the town of Kourgan, which, under his good management, enabled him to lead a modest life.

Being in constant touch with the common people, Mr. Balakshin learned thoroughly their life and needs, and won general respect for his open character and readiness to help.

The appearance of a new trade, which promised to be profitable for the peasantry, could not fail to attract the attention of such a responsive person as Mr. Balakshin, whose character so happily united the idealists aspirations with sober understanding of the real and the capacity to carry to the end any task undertaken.

After studying the new trade and learning the practical part, Mr. Balakshin arrived at the conclusion that, in order to safeguard the milk producers against unscrupulous exploitation by the private owners of butter factories, it was necessary first to organize the business on co-operative principles, and second, to remove from connection with the selling of butter the unnecessary middlemen, represented by the buyers-exporters, and, third, to bring the consumer closer to the producer by organizing co-operative disposal of butter abroad.

The Attempt to Eliminate Foreign Exporters. The first attempt to organize the sale of butter abroad was made in 1901.

The Moscow Agricultural Society, the Kourgan section of which Mr. Balakshin was the chairman, founded an agricultural association which was joined by five butter-making associations and by some private butter factories with a total output of butter of about 77,000 poods (about 25,000 cwts). But this association very soon ceased to exist.

In the same year, Mr. Balakshin read a report about the necessity of organizing the making of butter on co-operative principles, at the Congress of butter makers, held in Kourgan. This report was energetically supported by the Government Agronomist, Mr. Joseph Okulitch, (now the general manager of the Union of the Siberian Creamery Associations for abroad) who pointed out to the Congress the necessity of establishing a direct connection between the co-operative organizations of Siberia and the consumers' organizations in England.

Special Organization to Introduce the Co-operative Principles in the Butter-Making Trade. Having thus prepared the ground in Siberia, Mr. Balakshin came to Petrograd in 1902 to secure the assistance of the Government for the proposed undertaking—the organization of co-operative butter-making.

He was fortunate enough to enroll the interest in the venture of the noted statesman of the period, A. S. Yermoloff, the Minister of Agriculture, with his profound knowledge of agriculture, and the well known count S. J. Witte, the Minster of Finances.

found insufficient for the growing needs of the business, and accordingly alterations were made from time to time. The resolution of the general meeting held 4—13th of March 1917 was, that an entirely new set of by-laws should be compiled, which would be in keeping with new times and requirements of the business as well as with the newly promulgated state law referring to co-operative movement.

General Meeting. According to the new by-laws, the supreme power in the Union is vested in the General Meeting of the representatives, who are elected by district meetings from among the members of co-operative associations concerned, at the rate of one person for each 25 associations, members of the Union. The Union comprising on the 1st April 1919, 4357 co-operative associations, the General meeting consists of 174 members. In practice the representatives, elected to the General meeting, are exclusively peasants-agriculturists and Cossacks, and therefore the Union of the Siberian Creamery Association is purely a democratic, peasant organization. The whole business has been and is conducted by representatives of the peasantry and Cossacks, with only a few exceptions in the case of persons, who, not being of the peasant class, have gained the trust and confidence of the peasants-agriculturists by their work for the benefit of the Union. This composition is reflected in the whole activity of the Union, which is stamped by the cautious circumspection and quiet business methods so peculiar to the Siberian peasant. This is the main reason for the enormous growth and thriving of the Union.

The General meeting is presided over by a chairman, elected by the meeting, which guarantees complete independence of his opinion from the Board of the Union.

Board of Directors of the Union. The Board of Directors of the Union and also chairmen of all District Boards are elected by the General Meeting. General Meeting investigates the annual report of the Union, the reports of the District Boards, together with the conclusions of the Auditing Committee, approves the estimate of expenses and decides the more important matters. For investigation and decision on matters for which the Board of Directors of the Union cannot undertake the responsibility and which at the same time cannot await the next General Meeting there is a Council, consisting of members of the Board of the Union, chairmen of the District Boards and persons especially elected for this purpose, by each district.

The Board of Directors of the Union consists of 10 persons, elected by the General Meeting, has its seat in Omsk, manages the whole business of the Union and directs and unifies the activities of the District Boards.

Management of Districts. All work in connection with the buying of butter in the districts, distribution of goods, and instruction of butter factories and co-operative stores is in charge of the District Boards. The

Union of the Siberian Creamery

AND OTHER

Co-Operative Associations

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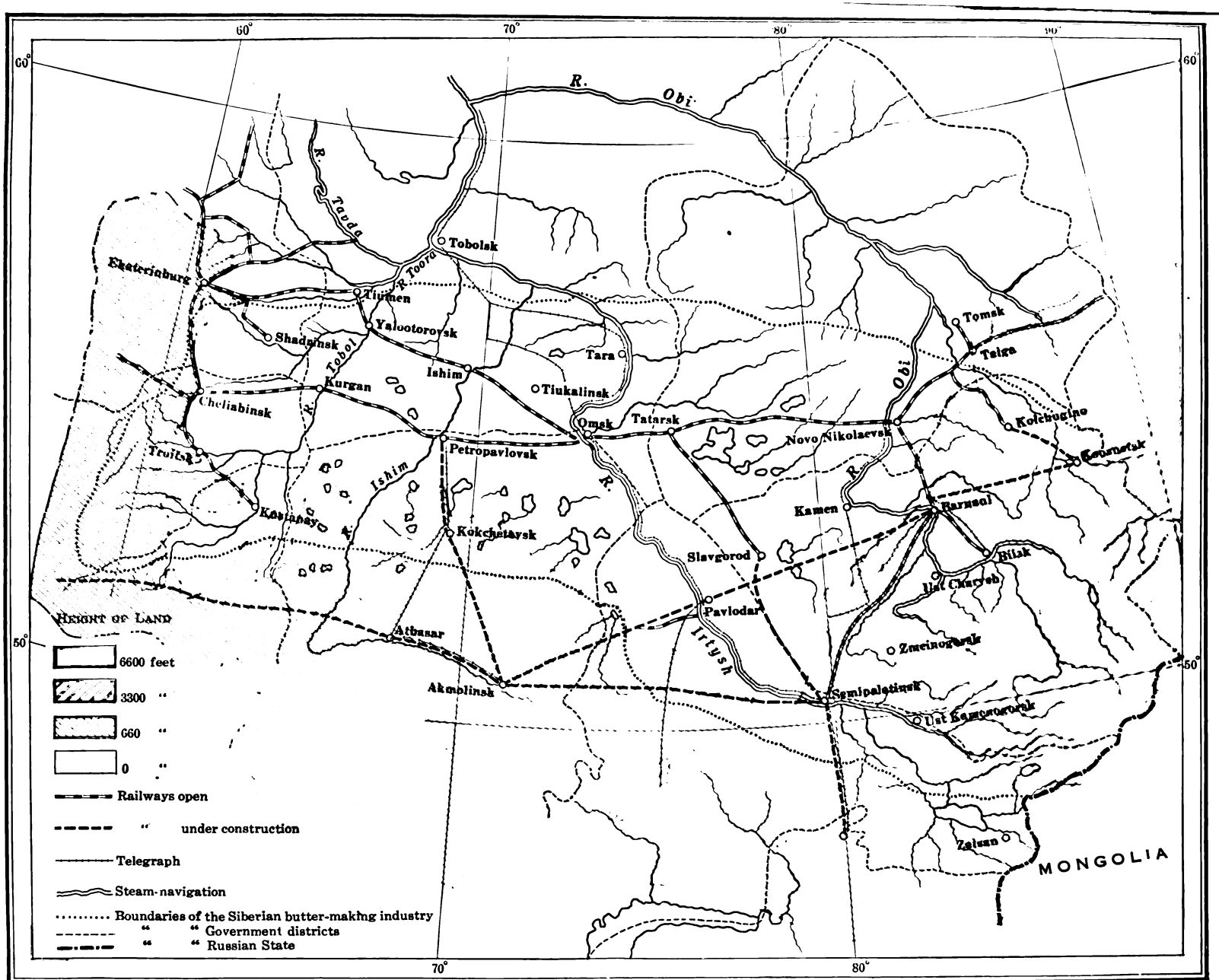

1. Physical Map

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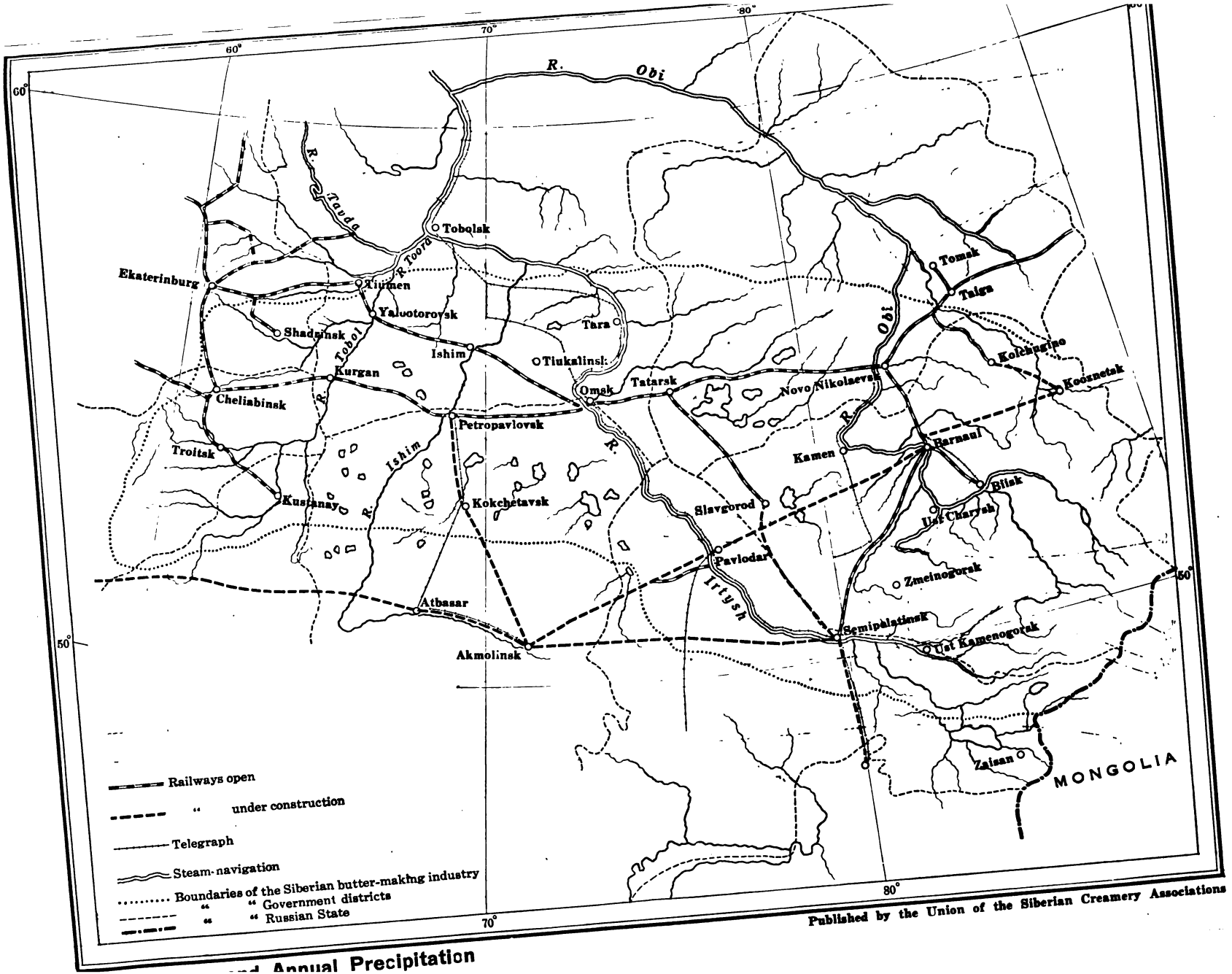

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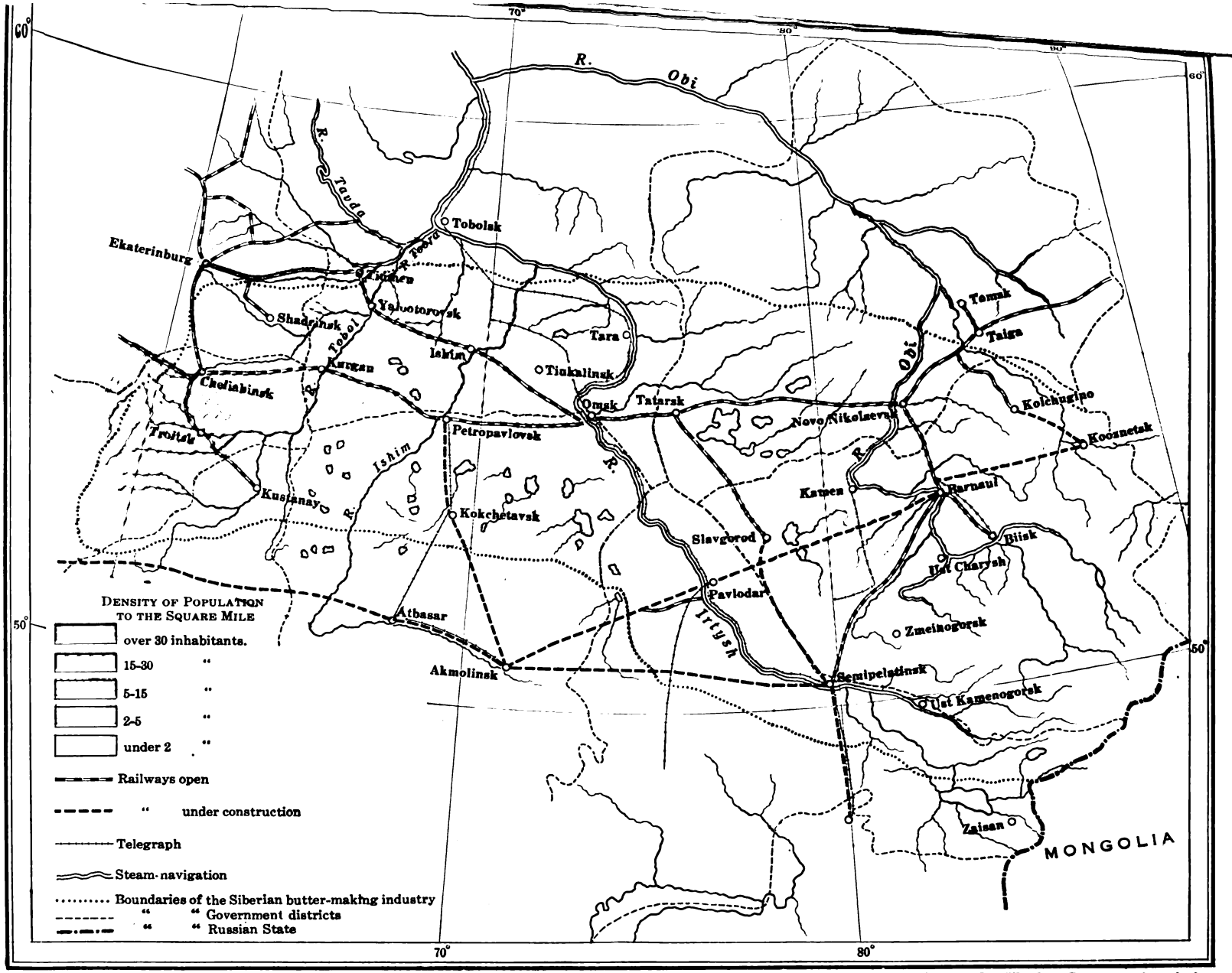
Annual Precipitation



7. Population of Western Siberia

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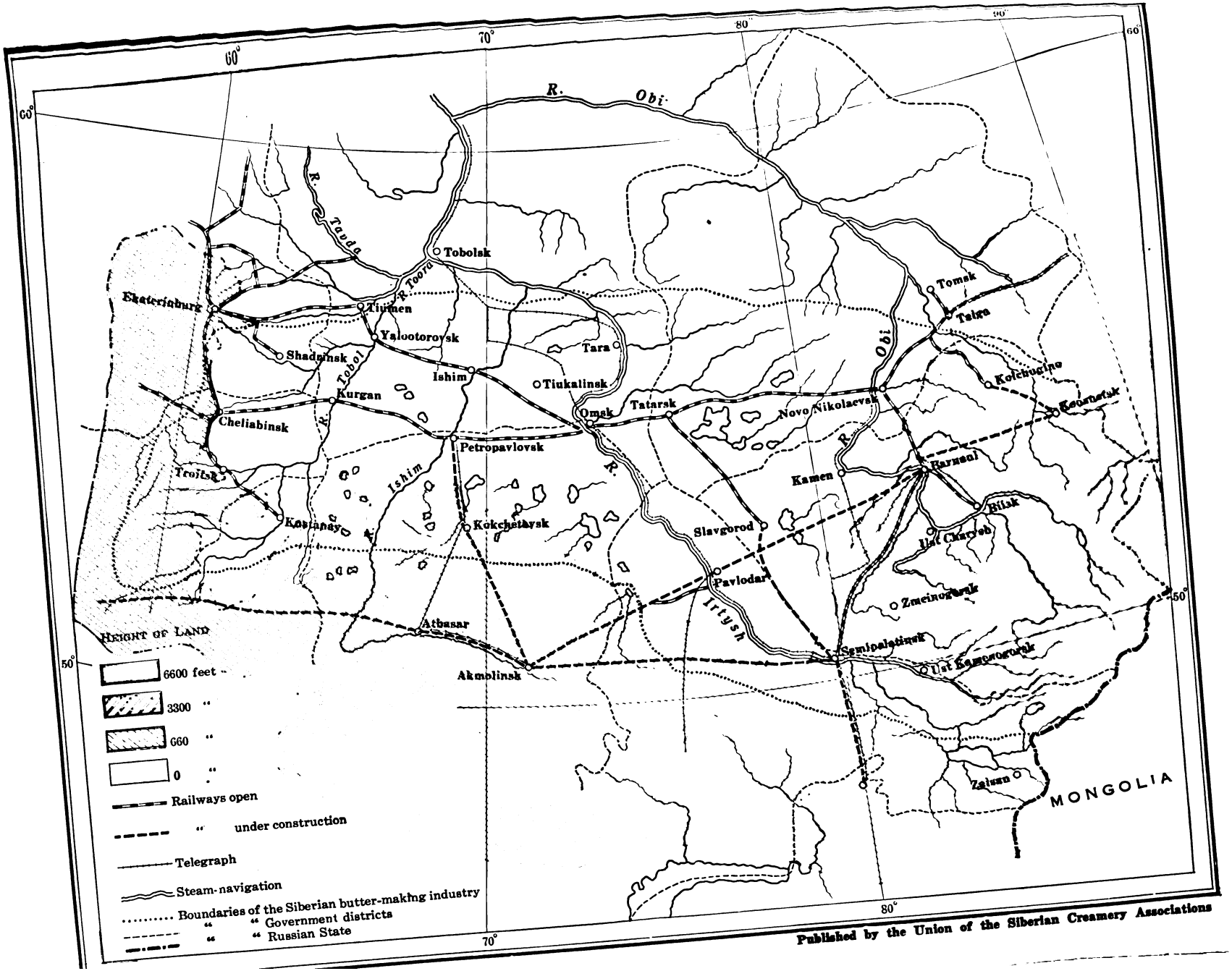
60°
70°
80°
90°
60°
50°
R. Obi
R. Tavda
R. Toora
Tobolsk
Ekaterinburg
Tiumen
Yalootorovsk
Shadrinsk
R. Tobol
Ishim
Tara
Tiukalinsk
Kurgan
Cheliabinsk
Omsk
Tatarsk
Petropavlovsk
R. Ishim
Troitsk
Kokchetavsk
Kostanay
Atbasar
Akmolinsk
Tomsk
Taiga
R. Obi
Kolchugino
Novo Nikolaevsk
Barnaul
Kamen
Biisk
Slavgorod
Ust Charyish
Pavlodar
Zmeinogorsk
Irtysh
Semipalatinsk
Ust Kamenogorsk
Zaisan
MONGOLIA
HEIGHT OF LAND
6600 feet
3300 "
660 "
0 "
Railways open
" under construction
Telegraph
Steam-navigation
..... Boundaries of the Siberian butter-making industry
" " Government districts
" " Russian State
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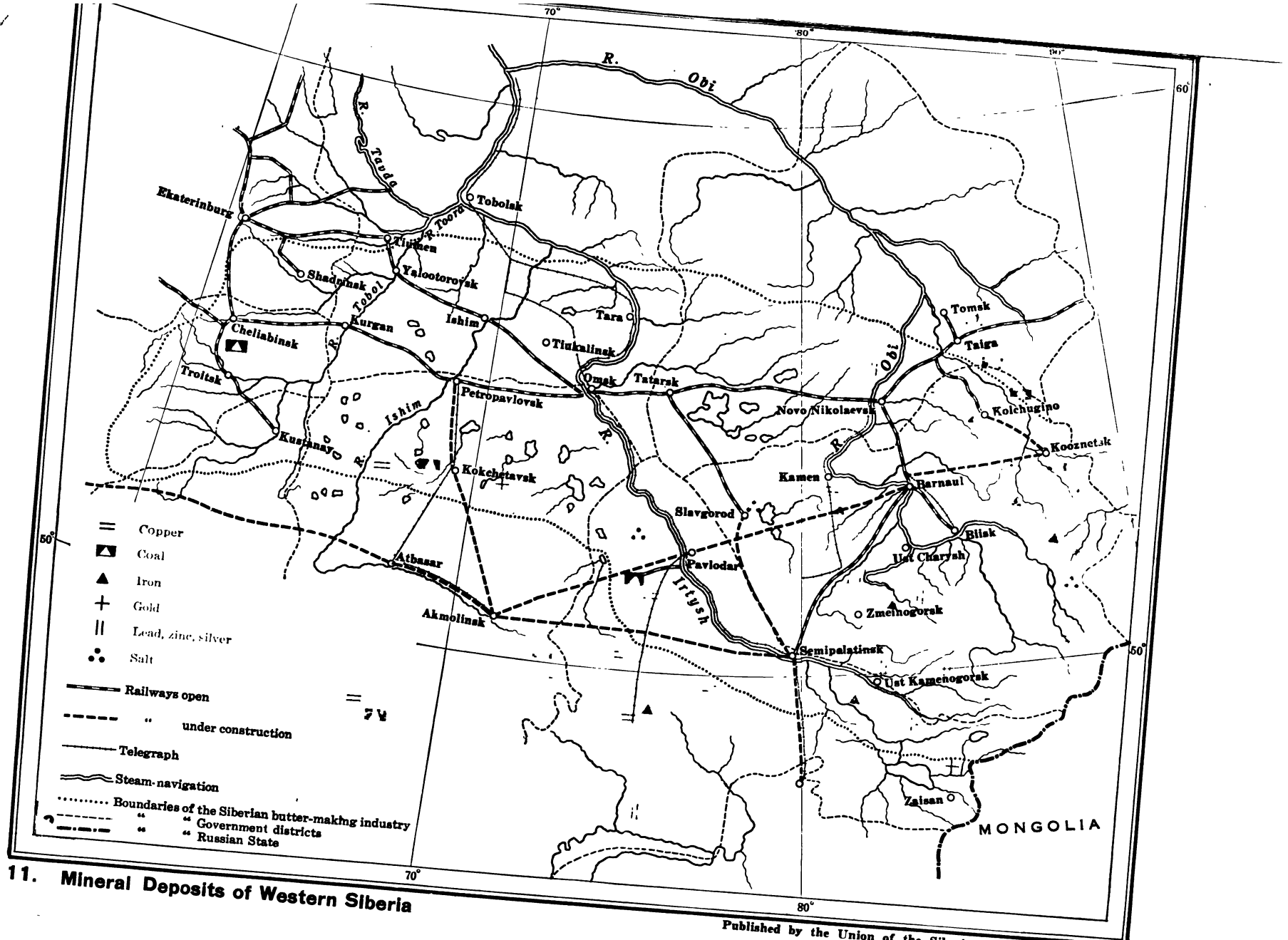

11. Mineral Deposits of Western Siberia

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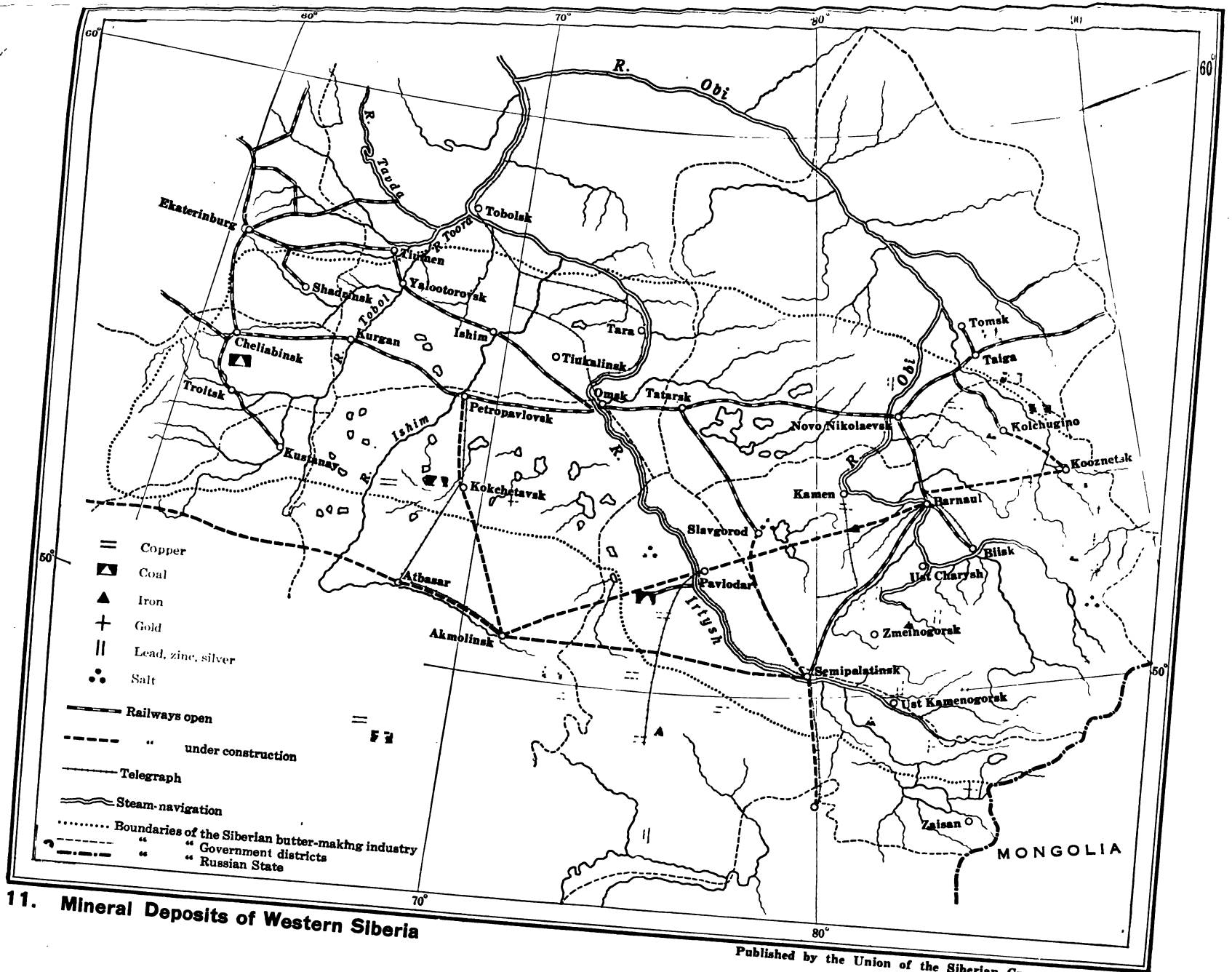

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